Docket No.: 3216.21-US-01 (SIL-03-155)

19 1 1 t

15

20

## LINKED DIHYDRAZONE-BASED CHARGE TRANSPORT COMPOUNDS

## **ABSTRACT**

5 Improved organophotoreceptors comprise:

(a) a charge transport compound having the formula

$$\begin{bmatrix} X - (CH = CH)_n - CH = N - N - A - \end{bmatrix}_2 B$$

where n is an integer from 0 to 1;

10 X is an (N,N-disubstituted)arylamine group;

Ar is an aryl group or a heterocyclic group;

A is a first linking group with the formula  $-(CH_2)_p$ - which can be branched or linear, where p is an integer from 3 to 20 inclusive and where one or more methylene groups can be optionally replaced by O, S, a carbonyl group, urethane, urea, an ester group, a  $-NR_{16}$  group, a  $CHR_{17}$  group, or a  $CR_{18}R_{19}$  group where  $R_{16}$ ,  $R_{17}$ ,  $R_{18}$  and  $R_{19}$  are, independently, H, hydroxyl, thiol, an amine group, an alkyl group, an alkaryl group, an aryl group, or part of a ring; and

B is a second linking group having the formula -Q-Z-Q'-, where Q and Q' are, independently, O, S, or NR<sub>1</sub>, where R<sub>1</sub> is an H, an alkyl group, an alkaryl group or an aryl group, and Z comprises a heterocyclic group;

- (b) a charge generating compound; and
- (c) an electrically conductive substrate over which said charge transport compound and said charge generating compound are located.